

Agilent Ref: 10021090-1
United States Application Serial No. 10/693,064

RESPONSE

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 1-26 and 35-42 the only claims pending and currently under examination in this application.

Formal Matters

Claims 1-26 and 35-42 are pending after entry of the amendments set forth herein

Claims 1-26 and 35-42 were examined. Claims 1-4, 6-11, 13-18, 21-26, and 35-36 were rejected and claims 5, 12, 19, 20 and 37 were objected to. No claims were allowed.

Claims 4, 8, 10-12, 22, 23 and 26 have been amended. Claims 4 and 11 have been amended to address a typographical errors and an antecedent basis issue raised in the Office Action. Claims 8, 10-12, 22, 23, and 26 have been amended to replace the tradename Parylene ® with para-xylene.

As the above amendments introduce no new matter to the application, their entry is respectfully requested.

Allowable Subject Matter

The Applicants express gratitude in the Examiner's indication that claims 5, 12, 19-20, and 37 are directed to allowable subject matter.

Rejection under 35 U.S.C. §112, second paragraph

Claims 4 and 11 have been rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for failing to particularly point and distinctly claim the subject matter regarded as the invention.

Claims 4 and 11 have been amended to address typographical errors and antecedent basis issues raised in the Office Action. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

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Rejection under 35 U.S.C. §102

The Office Action has maintained the rejection of claims 1-4, 6-11, 13, 15, 17, and 21-25 under 35 U.S.C. §102 for allegedly being anticipated by Bloom et al. (U.S. Patent No. 6,863,833). In addition, the rejection has been extended to cover the newly presented claims 35-36, 38-39, and 41-42. In view of the remarks made herein, this rejection is respectfully traversed.

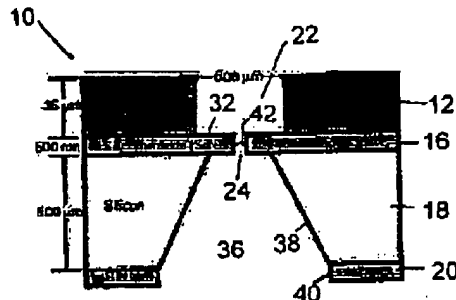
The Office Action equates an oxide layer formed on the surface (denoted as 38) on region 18 of Fig. 1A to the second region of claim 1 (Office Action, page 2). In addition, the Office Action equates region 16 of Fig. 1A to the first region of claim 1. In further elaborating on the rejection, the Office Action states the following with respect to the cited art:

an oxide layer is formed on the sidewall 38 of the recess 36, which oxide layer reads on the claimed second region. Since the walls 38 of the silicon substrate region 18 surrounding the first region comprising diagram [sic] 16, the aforementioned oxide layer formed on the sidewalls are also surrounding the first region. Furthermore, since the silicon sidewalls 38 (see Fig. 1A) is oxidized to form about 1.1. micron of oxide, the upper surface of oxide layer is substantially flush with the bottom surface of the diagram [sic] 16...

(emphasis added).

However, the Applicants respectfully disagree. The upper surface of an oxide layer formed on the sidewall 38 of recess 36 as described in Bloom is substantially flush with substrate region 18 and not substantially flush with the first region 16. As demonstrated in the reproduction of Fig. 1A below, the oxide layer of Bloom is flush with the surface 38 of the substrate and is not flush with region 16, which region 16 is equated by the Office Action to the first region of the presently claimed invention.

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In contrast, the Office Action equates region 18 of Fig. 1A to the substrate region that supports the first region of the claimed invention (Office Action, page 3, lines 3-4).

As noted in the previous response, the second region as recited in the claims both laterally surrounds the first region and has an upper surface that is substantially flush with the bottom surface of the first region. Any oxide layer present on element 18 of Fig. 1A will not have this recited structure, i.e., it will not laterally surround the first region and have an upper surface that is substantially flush with the bottom surface of the first region.

As such, the cited reference does not teach each and every limitation found in the claims. Therefore, since the cited reference fails to anticipate claims 1-4, 6-11, 13, 15, 17, 21-25, 35-36, 38-39, and 41-42, the Applicants respectfully request that this rejection be withdrawn.

Rejection under 35 U.S.C. §103

The Office Action has maintained the rejection of claims 14, 16, 18, 24, and 26 under 35 U.S.C. §103 as being unpatentable for allegedly being rendered obvious by Bloom et al., (U.S. Patent No. 6,863,833) in view of Fishman et al. (U.S. Patent Application 2003/0032946). In addition, the rejection has been extended to cover the newly presented claim 40. In view of the remarks made herein this rejection is respectfully traversed.

As noted above, claim 1 recites that the second region both laterally surrounds the first region and **has an upper surface that is substantially flush**

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with the bottom surface of the first region. As reviewed above, nowhere in Bloom et al. is a second region as claimed taught, or even suggested, since the oxide layer of Bloom et al. which is equated by the office to the second region is actually present on element 18 of Fig. 1A.

There is no teaching or suggestion in Bloom et al. to provide a second region as claimed that both laterally surrounds the first region and **has an upper surface that is substantially flush with the bottom surface of the first region.** As the supplemental Fishman et al. reference has been cited for teaching microfluidic leads, this reference does not make up the deficiencies in the primary reference.

As such, the combined cited references do not teach each and every limitation found in the claims. Therefore, since the cited references fail to render claims 14, 16, 18, 24, 26, and 40 obvious, the Applicants respectfully request that this rejection be withdrawn.

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CONCLUSION

The Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

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